

Mimulus Memo



JANUARY 2018

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EVENTS

JANUARY

18 – Annual Potluck, 6-7 pm
Program 7-8 pm
20 - Bryophyte Field Trip

FEBRUARY

1-3 - CNPS Symposium
LAX Marriott
15 – Chapter Meeting, 6pm
Program, 7pm

MARCH

15 – Chapter Meeting, 6pm
Program, 7pm
17 - Desert Tortoise Natural
Area Field Trip
31 - Mill Creek Field Trip

APRIL

7 - Carrizo Field Trip
19 – Chapter Meeting, 6pm
Program, 7pm
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August 2017:

Early Springtime in the Yosemite High Country

by Nancy Nies

THE WINTER OF 2016-2017 BROUGHT AN UNUSUALLY HEAVY snowfall to the Yosemite high country — 42 feet of “Sierra cement,” as one ranger called it — which crushed the roof of the historic Tioga Pass Resort and delayed the opening of the Tuolumne Meadows campground and tent cabins until August 1. It also brought, to an already gorgeous part of the world, even more beauty: the surrounding peaks were still cloaked in white, the waterfalls and cascades more spectacular than ever, and the meadows and mountainsides filled with an abundance of colorful wildflowers. Paul and I spent the first week of August in the Tuolumne area, hiking our favorite trails and seeing how familiar places had been transformed. Here are a few examples.

We always enjoy beginning our annual visit to Tuolumne Meadows (el. 8600 ft.) with the easy climb of Pothole Dome, which affords a stunning 360-degree view: meadows, river, peaks and domes. Some summers, we had seen a few *Primula jeffreyi* (*Dodecatheon jeffreyi*) (Sierra shooting star) blooming along the trail at the base of the dome, at the west end of the meadow. This time it was much more profuse, turning large swathes of the meadow a lavender-pink.

Along the Dog Lake/Lembert Dome trail (el. 8600-9000 ft.), we were treated to more uncommon sights. Every so often, the bright-blue flowers of *Delphinium* sp. and the creamy white “butterfly-wing” petals of *Calochortus leichtlinii* (Leichtlin's mariposa lily) — many more of both than we'd ever seen there before — drew our attention.

Dana Gardens (el. 10000 ft.), an open hillside that can be reached by hiking just a half-hour up the Mt. Dana trail, is always a wonderful place to find summer wildflowers. Though



Primula jeffreyi (*Dodecatheon jeffreyi*) (Sierra shooting star), west end of Tuolumne Meadows, 1 August 2017

Photos by Nancy Nies

in August they can be a bit past their prime, this year they were at their peak. The deep purple of *Lupinus latifolius* (broad-leaved lupine), the vibrant red of *Castilleja* sp. (paintbrush), the bright yellow of *Solidago* sp. (goldenrod) and the pinkish lavender of *Allium validum* (swamp onion) combined to make an unforgettable wild garden.

The trail to Gardisky Lake (el. 10500 ft.), which starts from the Saddlebag Lake road, just outside the Yosemite park boundary, begins with an extremely steep segment. The stunning views and beautiful wildflowers to be found along the way make the climb worthwhile. Our special reward this time, for making it to the top, was a whole hillside of *Iris missouriensis* (western blue flag) at peak bloom. On our previous visits there had only been a small clump of the iris, its blooms mostly already dried up. This year was different, to say the least! At the lake itself, we also saw more flowers than we remembered from other years, including lovely, deep-pink clumps of *Kalmia polifolia* (mountain laurel) lining the lakeshore.

The hike to Gaylor and Granite Lakes (el. 10,000-11,000 ft.) another of our favorites for its sweeping vistas and breathtaking scenery, also begins with a steep climb. We have always been well compensated

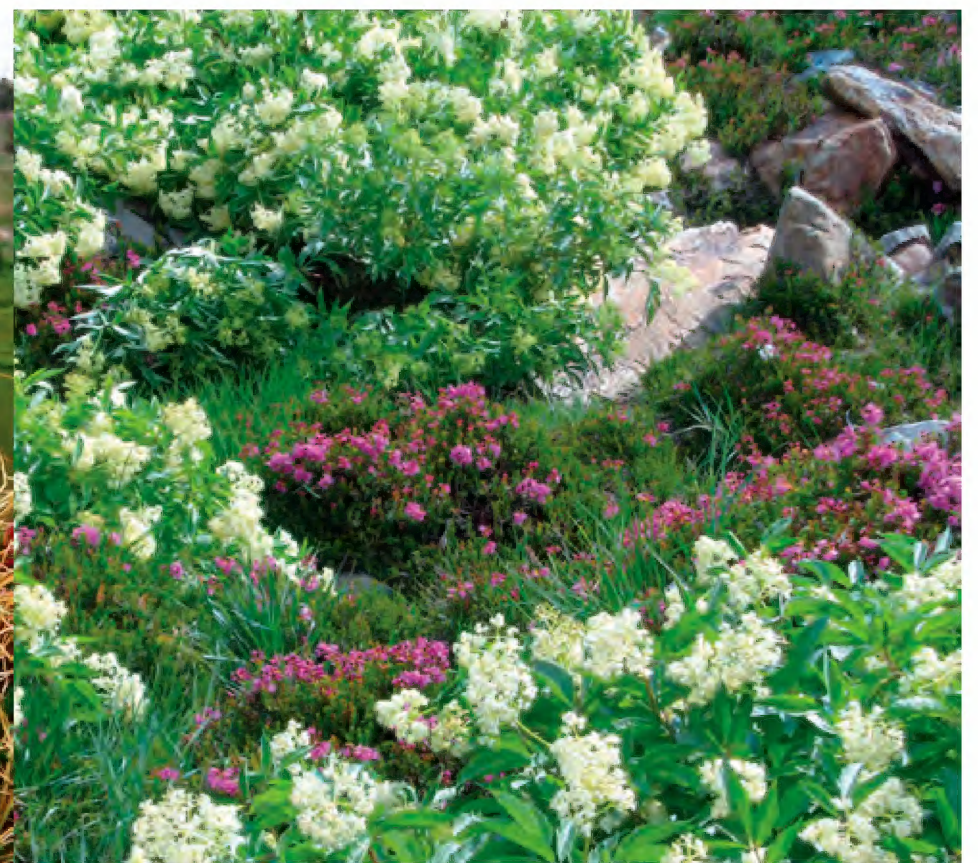


Seep garden near Upper Granite Lake, 5 August 2017

for our efforts — not only by spectacular views, but also by a variety of blooms—and this time was no exception. As with our other hikes, however, there were differences on this visit. One stand-out, in a rocky area at Middle Gaylor Lake, was an extensive, spreading thicket of *Sambucus racemosa* var. *racemosa* (red elderberry). Thick with creamy-white flowering heads and bright-green leaves, it contrasted with its background of gray rocks. Blooming

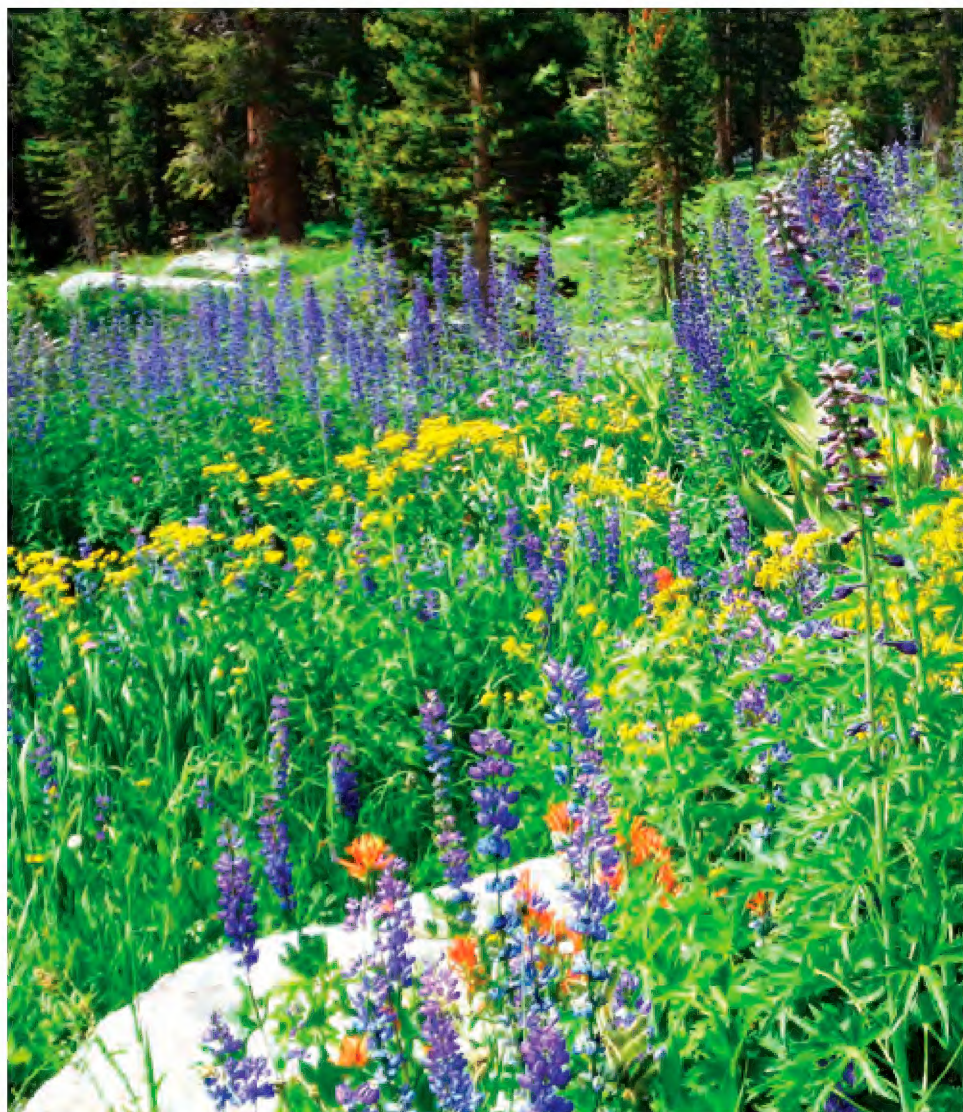
alongside it was a healthy patch of *Phyllodoce breweri* (purple mountainheath). Later on, hiking off-trail near Upper Granite Lake, we happened upon the botanical highlight of the day: a large, colorful seep garden made up of long-stemmed *Arnica* sp., *Castilleja* sp. (paintbrush), and *Allium validum* (swamp onion). The vivid yellow, red and lavender hues of the flowers, as well as their lush, green foliage, stood out against the dry, rocky landscape surrounding this “secret garden.”

For the Yosemite high country, it was an unusual first week in August. Although there was some warm sunshine, there were often overcast skies and cool temperatures, as well as late-afternoon thunderstorms. Compared with a normal year, there was more snow covering the mountains and more water swelling the



(Left) *Kalmia polifolia* (mountain laurel), Gardisky Lake, 4 August 2017 (Right) *Sambucus racemosa* var. *racemosa* (red elderberry) and *Phyllodoce breweri* (purple mountainheath), Middle Gaylor Lake, 5 August 2017

lakes and rivers. And last, but certainly not least, there were more flowers gracing this beautiful part of the world with vibrant color—flowers usually seen earlier in the summer and in smaller numbers, if at all. It was August, but in 2017, it was early spring! ❀



Dana Gardens, 3 August 2017

Photo Assortment: Horse Meadow Camp-out 2017



(Left) *Castilleja praeterita*
(Salmon Creek paintbrush)

(Right)

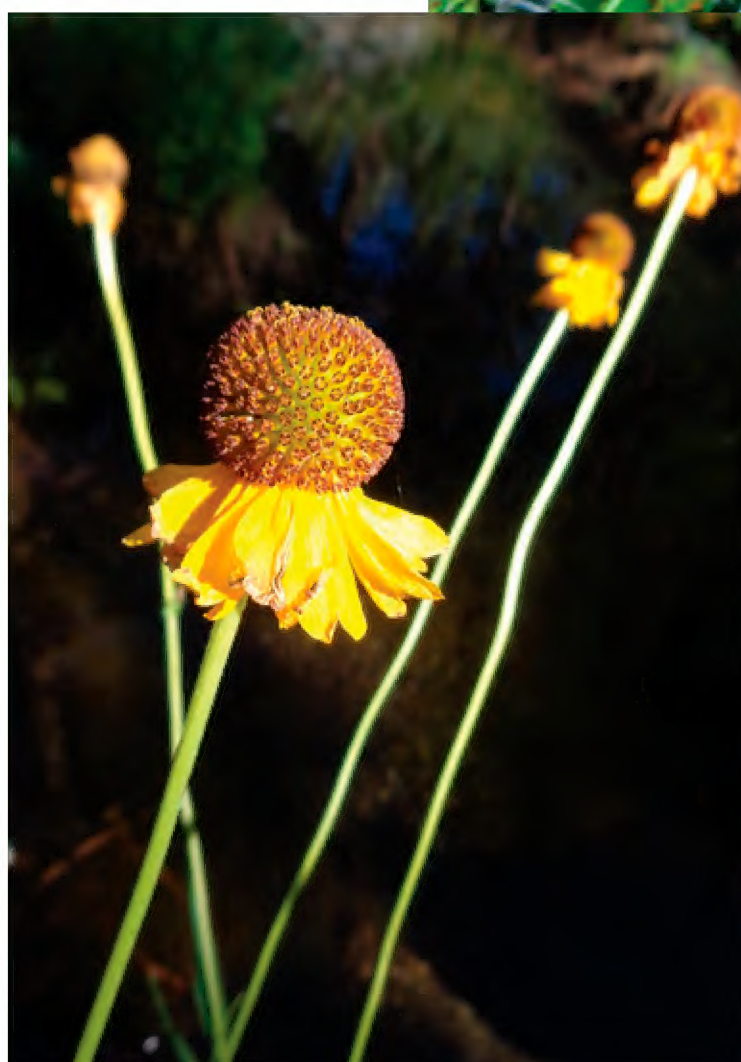
Lupinus lepidus var.
confertus
(clustered tidy lupine)



Photos by Nancy Nies

Thank You to:

- ... **Dr. Anna Jacobsen**, for her engaging presentation on differences and similarities in *Mediterranean Shrublands* found in various parts of the world.
- ... **Melanie Baer Keeley** for her informative and helpful presentation on *Landscaping with Natives* from the Southern Sierra foothills.
- ... **Stephen Cooley** for his fascinating practical advice on growing natives from seeds. ❀



(Left) *Helianthemum bigelovii*
(Bigelow's sneezeweed)

President's Message Bladderpod in Kern County

by Richard Spjut

BLADDERPOD (*ISOMERIS ARBOREA*, Cleomaceae), familiar to most, if not all chapter members, is a stinky native shrub we often sell at plant

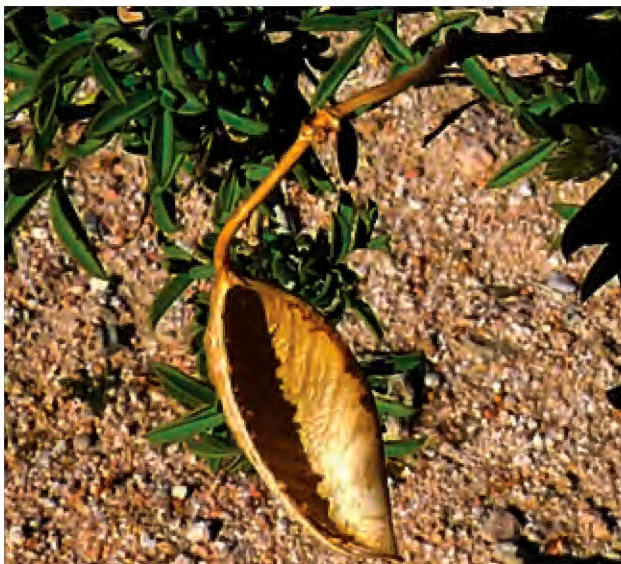
sales, not for its odor, but for its persistent green leaves, its frequent flowering, and its drought tolerance. It is distinct for its inflated (bladder-like) fruit, referred to as an utricle,² or described as a "septicidal capsule,"³ or called a siliqua (var. *angustata*) or silicula (vars. *arborea*, *globosa*); the latter fruit terms (names) applied because the fruit separates from a carpellary rib-like frame (replum) similar to that of a mustard plant,⁴ (Brassicaceae). From 5–25 seeds attached to the replum⁵ may detach before the fruit opens, or after it falls to the ground, where, blown by a wind, it may open and disperse seeds.

Photo by Anna Laurent



Isomeris arborea fruit wall (pericarp) separating from replum (frame) with 4 attached seeds¹

Photos by Richard Spjut



Isomeris arborea section of fruit (valve) persisting on plant without seeds, Short Canyon.



Side-by-side comparison of the varieties shown in left column below in a closer view of fruit. Red lines added to outline pedicels, and blue lines the stipe. Var. *globosa* has larger shiny fruits on shorter stipes and shorter pedicels. Fruits of the novel variety are somewhat dull and glaucous, pedicelled and stiped at about twice the length of that of var. *globosa*. The immature green fruits are photosynthetic; seeds produce carbon dioxide maintained within the fruit wall.¹²

Isomeris arborea was first named by **Forrest Nuttall** in 1838, the only species in the genus. It was renamed *Cleome isomeris* by **Edward Greene** in 1888⁶ without explanation; *Cleome* had included 4 annual species in California,⁷ but taxonomists continued to use *Isomeris* until its DNA relationships were studied. In 2007, it was assigned to an older genus, *Peritoma* (DeCandolle 1824,⁸) with 5 other species of annuals in North America formerly classified in the genus *Cleome*; subsequently,

it was transferred to *Cleomella*,⁹ a genus of herbs expanded to include other small genera found in the California deserts, namely *Carsonia*, *Oxystylis*, *Peritoma*, and *Wislizenia*. Despite these reassignments, the arbooreal habit and utricular fruit still easily distinguish bladderpod. It also reportedly has a peculiar embryo.¹⁰ Since the taxonomic classification of bladderpod remains controversial, I refer it to the historical genus *Isomeris*; after all, its morphology seems more definitive than its recently revised generic circumscription (*Cleomella*).



Comparison of two varieties of *Isomeris arborea*: **left**, a novel variety found on steep slopes in the Kern River Canyon, distinguished by longer-stalked fruits broadly tapered to base; **right**, var. *globosa* characterized by nearly spherical fruits abruptly tapered to base, common in the San Joaquin Valley foothills, photo from plant along Brundage Road. Here it may be noted that *Heterotheca shevockii* (Asteraceae), distinguished from related species by lack of hairs on the disk flowers, is known only in the Kern River Canyon.

Bladderpod is widely distributed in southern California extending into Baja California and beyond — to islands south of “land’s end” (Cabo San Lucas). Not many native species show such broad ecological and geographical distribution. In Kern County, bladderpod can be found in the foothills of the San Joaquin Valley, in the Kern Canyon, along the western margin of the Mojave Desert, and in the El Paso Mts. The bladderpod fruits vary in shape. Four varieties can be recognized, the most genetically distinct being the one in the valley, var. *globosa*.¹¹ 🌱.



Comparison of *Isomeris arborea* var. *arborea* (bottom, Short Canyon) and var. *angustata* (top, El Paso Mts.). Varieties distinguished by fruit shape, ellipsoidal (var. *arborea*) similar to a bitter melon (*Mormordica charantia*), elongated (var. *angustata*) like a green chili pepper (*Capsicum annuum*). Both appear to have pedicel and stipe length similar to var. *globosa*.

References

1. Anna Laurent, fruit of *Isomeris arborea*, reproduced with permission, webpage, Dispersal Project, <http://www.annalaurent.com/press/>
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3. Vanderpool, S. S. and H. H. Iltis. 2010. FNA 7: 199, 206. Preson, R. E. and S. S. Vanderpool. 2012. In Baldwin et al., The Jepson Manual, 2nd ed. (Cleomaceae).
4. Watson, L., and M. J. Dallwitz. 1992 onwards. The families of flowering plants: descriptions, illustrations, identification, and information retrieval. Version: 24th October 2017. delta-intkey.com/angio. Cleomaceae. Note: Cleomaceae formerly part of Capparaceae, see Hall et al. (2002), Am. J. Bot. 89: 1826–1842.
5. Replum (Lat. frame): a longitudinal parietal rib (or frame) where carpel(s) may separate to disperse seed(s), with or without a cross partition. Note: In FNA (Ref. 3), *Isomeris* is stated to be composed of one carpel, which the fruit type would then be a coccum (Spjut 1994). A carpel is the simplest divisible unit of the gynoecium, characterized by an ovary with a single placenta, associated with a style and stigma. *Isomeris* has two parietal placentae separated by a replum, thus, the gynoecium is two-carpelled. But see Bruckner (2000), Clarification of the carpel number in Papaverales, Capparales, and Berberidaceae. Bot Rev. 66: 155–307.
6. Greene, E. 1888. A list of the known Cedros Island plants. Pittonia 1 (14): 200. Note: *Cleome arborea* Kunth is an earlier name, published in 1821, for a plant that has since become a synonym of *Crataeva tapia* Linnaeus (Capparaceae); thus, Greene had to change the epithet when he transferred *Isomeris arborea* to the genus *Cleome*.
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10. Maheshwari, P. and R. C. Sachar. 1954. A reinvestigation of the embryogeny of *Isomeris arborea* Nutt. Current Science 23: 61–63.
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CALIFORNIA
NATIVE PLANT SOCIETY

CNPS is the leader for providing reliable information on California native plants and plant conservation. Comprehensive information about California’s flora and vegetation communities is available throughout the state for conservation and educational purposes. CNPS’s leadership influences personal ethics and actions, as well as public policy for native plant protection.

FIELD TRIPS

by Patty Gradek with Rich Spjut

KERN CNPS FIELD TRIPS ARE OPEN TO ALL. Occasionally, numbers will be limited by the land owners or agencies. We welcome you to join us to see and learn about our native plants and their habitats, to learn to identify plants, or to photograph them. If you are skilled in plant identification, you can help us all learn.

Please always dress in layers, wear boots or shoes you can hike in, and bring food and water. You may also want to bring a hat, sunscreen, binoculars, camera, plant lists and useful references such as Kern County Flora and the Jepson Manual, or any book you like. We try to meet at a spot where we can park some cars and carpool to our location to save the air, the gas, the money and make sure that we will have adequate space to park. CNPS does not arrange car pools; each person does so at the meeting place. If you ride with another driver, please remember to offer to help pay for gas.

All trips are by reservation only, so we know whom to expect, and how many will be attending each field trip. Each trip will have the contact person listed. Please email the contact person by four days before the field trip and indicate the names of those who will attend. Please also provide a cell-phone number, in case we need to reach you that day, and indicate whether you will be driving a four-wheel-drive, AWD or high-clearance vehicle. We may need to limit participation for some trips if we don't have an adequate number of four-wheel-drive, AWD or high-clearance vehicles for all the participants.



IMPORTANT: If your plans or your party's plans change and you will not be attending, it is critical for safety, planning and courtesy reasons – that you call or email the contact person and let them know you will not be there.

This schedule of field trips is based on receiving rain in the next few months and having adequate conditions for viewing spring wildflower displays.



Photos Wiki Commons

January 20, Saturday

BRYOPHYTES OF THE KERN CANYON
with **Jim Shevock** and **Rich Spjut**

Contact: **Patty Gradek** – pattygradek@gmail.com

RSVP Deadline: **8pm, Tuesday, January 16**

Noted Bryophyte experts **Jim Shevock** and **Rich Spjut** will be leading us on a field trip to observe bryophytes in the Kern Canyon. Jim will be giving a presentation on bryophytes at our chapter meeting and annual potluck on **January 18th**, so be sure to come for his very informative presentation. Then have an opportunity to see local bryophyte populations with Jim and Rich Spjut on **January 20th**.

Jim Shevock, a Research Associate at the **California Academy of Sciences** since 1983, also a Fellow in 1997, began his career as a Botanist/ Ecologist for the **US Forest Service Sequoia National Forest** in 1979. His collections from Kern County number in the thousands, with several new species named after him. Rich Spjut has more than 40 years of experience in collecting and identifying bryophytes, including collecting plants for possible cancer cures for the **National Cancer Institute**. He contributed an article to the September 2017 issue of the *Mimulus Memo* titled *Decline in Bryophyte Abundance in the United States*. You may want to refer to his checklist of "Bryophytes of Kern County, California" on our chapter website: kern.cnps.org before the field trip.

Please meet at the shopping center at Fairfax and Auburn streets (just north of the Hwy 178 exit) promptly at **8:30am**. We will form carpools and drive to the Taco Bell at Lake Isabella, which is at the junction of the Hwy 178 exit road into Lake Isabella and the road to Bodfish. We will meet Jim there and should be able to use the restrooms at Taco Bell. This will be a full-day trip and we will be returning to Bakersfield before dark.

Photos Wiki Commons



If we continue to have very dry conditions, we may have to cancel some field trips.

March 17, Saturday

DESERT TORTOISE RESEARCH
NATURAL AREA

with **Lucy Clark** and **Jillian Estrada**

Contact: **Lucy Clark** – lucyg391@gmail.com

RSVP Deadline: 8pm, Tuesday, March 13

We have been invited to join the Preserve Manager and volunteers of the **Desert Tortoise Preserve Committee** for their work day at the **Natural Area** on **March 17th**. The focus for this work day is to remove invasive species such as *Salsola* and *Brassica* from selected areas. They are excited to have CNPS members participate in this important project. Following the work day, we will drive to nearby areas to observe desert wildflower blooms.

Plan on this being a full-day trip. We will meet at the Taco Bell on the north side of the junction of Hwy 58 and Hwy 184 (Weedpatch Hwy) at **7:30am**. We will form carpools and leave promptly at 7:45am. The work party will begin around 9:00am at the Natural Area and continue until early afternoon. We will then be free to explore the nearby wildflower blooms.

Bring your lunch, water, hat, and sunscreen and wear work clothes and boots. **Please RSVP to Lucy Clark** at the above email.

If you are not familiar with the area, you will find it to be a wonderful place to return to many times each spring.

We will meet at the parking lot of the small shopping center at Fairfax and Auburn roads at **9:30am**. Take the Fairfax exit off Hwy 178 and head north on Fairfax to the shopping center on the northwest corner of Fairfax and Auburn roads. We will form carpools there and then head east on Hwy 178 into the Kern River Canyon. There may be a stop or two on the way to Mill Creek if we see some good displays. Mill Creek is less than an hour from Bakersfield and it is a Forest Service trail. Plan on returning to Bakersfield by late afternoon. Bring your lunch, water, a sunhat, and sunscreen, and wear boots you can hike in. Please **RSVP to Patty Gradek** at the above email.

**April 7, Saturday**

Carrizo Plain National Monument

with **Denis Kearns**

Contact: **Patty Gradek** – pattygradek@gmail.com

RSVP Deadline: 8pm, Tuesday, April 3

Botanist **Denis Kearns** will lead us on a trip to this wild and beautiful place. The trip will be limited to 20 people, due to limits prescribed for such tours in the BLM Management Plan. Therefore, if you want to attend, we suggest you contact Patty Gradek at pattygradek@gmail.com early, because only 20 people will be allowed to participate.

Please meet at the parking lot of the BLM office at 3801 Pegasus Drive at **8:30am** for carpooling. If you have a four-wheel drive or AWD, please drive it. We will leave promptly at 8:45am and this will be a full-day field trip. There are restrooms at the Visitor Center at Carrizo. Bring your lunch, water, a sunhat, sunscreen and boots you can hike in.

Photos by Patty Gradek

**March 31, Saturday**

MILL CREEK TRAIL IN THE KERN CANYON
with **Clyde Golden**

Contact: **Patty Gradek** – pattygradek@gmail.com

RSVP Deadline: 8pm, Tuesday, March 27

The Mill Creek Trail is in the **Sequoia National Forest** and is accessed via the Old Kern Canyon Road. It is one of our local wildflower treasures in the spring.



April 28, Saturday

NATIVE GARDEN TOUR IN BAKERSFIELD
with **Monica Tudor, Dale Gradek**
and **Dinah Campbell**

Contact: **Patty Gradek** – pattygradek@gmail.com

RSVP Deadline: 8pm, Tuesday, April 24

This native garden tour will visit the gardens of three of our chapter members. It will be an opportunity to see different species in bloom and various ways to landscape with natives. Plan on this being a morning's activity. We will meet at **Monica Tudor's** home in the Rosedale area of Bakersfield at 8:30am. We will spend 45 minutes touring her garden and then will travel to **Dale and Patty Gradek's** home in the northeastern part of Bakersfield. We will again spend 45 minutes touring their garden and then travel to **Dinah Campbell's** home which is also in the northeastern part of town. We will be finished by noon.

You are welcome to take photos and may want to bring water and sun protection. We assume the participants will drive their own vehicles to each location. Please **RSVP to Patty Gradek** at the above email. Participants will be given the addresses of the gardens. ☘

Conservation Corner: Tidbits

by Fred Chynoweth

THE KERN CHAPTER, AS MANY OF YOU KNOW, helped plant and will monitor Bakersfield cactus (*Opuntia basilaris* var *treleasei*) on **Nature Conservancy** property as part of a project to provide new stands in protected areas. Thank you for all your help.



Emily Roberson restarted the **Native Plant Conservation Campaign (NPCC)** about two years ago to bring together native plant societies and groups from around the US. The Native Plant Conservation Campaign is a network of affiliated native plant societies and other native plant conservation organizations throughout the United States. The mission of the Native Plant Conservation Campaign is to promote the conservation of native plants and their habitats through collaboration, education, and advocacy. She will be at our **2018 Conservation Conference** as a speaker in the *Marketing for Motivation* session. Here is the NPCC website: <https://plantsocieties.cnps.org/>



Dr. Nick Jensen has been hired to re-establish the **CNPS Southern California Conservation Analyst** position. Nick will be working closely with SoCal conservation chairs and welcomes input into his scope of practice. He was awarded a grant to help pay for the position for next year, but additional funds will be needed.



CNPS joined with other NGOs in opposing several bad federal forestry bills making their way through Congress. Letters were sent to key individuals in the House and Senate.



Endangered Habitats League (EHL) has provided expertise in evaluating programs, including **CalFire Vegetation Treatment Program** and draft EIR (VT-PDEIR). The San Diego CNPS chapter has relied heavily on their expertise. Cal Fire has submitted another VTPDEIR for comment that needs our input, because it does not appear to have incorporated prior comments. EHL, as a non-profit, is in need of financial support. The web page is <http://www.ehleague.org/donate.html>. ☘

CNPS Position Filled: Southern California Conservation Analyst

Greg Suba, CNPS Conservation Program Director, announced the hiring of new CNPS **Southern California Conservation Analyst, Nick Jensen.**

Greg said:

"...You may already know Nick since he's been a part of CNPS for many years. After graduating from **UC Davis**, Nick worked in the **CNPS Vegetation Program**. He transitioned to our **Rare Plant Program** where for several years he was the **CNPS Rare Plant Botanist**, and then **Rare Plant Program Director**, before leaving to pursue graduate studies in California's native flora, with a focus on the incomparable **Tejon Ranch**. Last month, Nick completed his PhD program at the **Claremont Graduate University** and today, takes over as the CNPS Conservation Program's lead staff person in Southern California. Over the next several months, I will be working closely with Nick to help him transition into the role and come up to speed on issues, and to introduce him to our conservation partners with whom he'll be working.

This significant increase in conservation is possible due to a generous grant from the **Robert & Patricia Switzer Foundation**, ongoing contributions from **CNPS Chapters**, and because **Elizabeth Schwartz** named CNPS in her will. Ms. Schwartz's lasting gift matches donations made by CNPS supporters — if you are able to make a gift then it is much needed!." ❀

Chapter Meetings

upcoming TOPICS

Thursday, January 18, 2018 - 7 pm

Presenter: **James R. Shevock**

Topic: *The First Land Plants: Distribution and Diversity of Bryophytes in California*

NOTE: Field Trip to follow on **January 20, 2018**

Thursday, February 15- 7 pm

Presenter: **Greg Suba**

Topic: TBA

Thursday, March 15 - 7 pm

Presenter: **Steven Hartman**

Topic: *Sepulveda Basin, Van Nuys, CA: World Class Urban Wildlife Refuge*

Thursday, April 19 - 7 pm

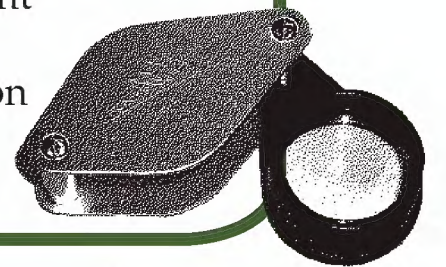
Presenter: TBA

All chapter meetings are held the **3rd Thursday** of each month at the Hall Ambulance Community Room 1031 21st Street (21st & N St.), Bakersfield, CA.

Meeting times:

6 pm — Discussion groups on plant identification and native plant gardening

7 pm — Program presentation



Upcoming CNPS Statewide Workshops

THE 2018 WORKSHOP SCHEDULE IS BEING DEVELOPED NOW AND WILL BE AVAILABLE SOON! Full details and registration information is being posted as it becomes available at www.cnps.org/workshops.

A workshop of possible interest to our members:

June 5-7, 2018

INTRODUCTION TO PLANT IDENTIFICATION: 15 Common Plant Families of Southern California San Bernardino Mountains, near Big Bear, CA

Instructors: Sandy Namoff & Nick Jensen

Cost: \$395 members, \$415 non-members

This 3-day workshop will be taught at a beginner level. Learn basic plant morphology and specialized terminology used to identify the 15 most common CA plant families which comprise more than 70% of plant diversity in CA. Learning characteristics of these families will reduce the amount of time needed to key many plants. Workshop will include two days in the classroom and one full-day field trip in San Bernardino Mountains. For more information, see URL above or contact **Becky Reilly** at breilly@cnps.org.

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The Kern Chapter of the



CALIFORNIA
NATIVE PLANT SOCIETY

California Native Plant Society meets
the third Thursday of each month at:
Hall Ambulance Community Room
1013 21st St. (21st & N St.), Bakersfield, CA.
Chapter website: kern.cnps.org

The California Native Plant Society is a non-profit organization dedicated to the conservation of California native plants and their natural habitats, and to increasing the understanding, appreciation, and horticultural use of native plants. CNPS has 31 chapters throughout the state and membership is open to all persons — professional and amateur — with an interest in California's native plants. Members have diverse interests including natural history, botany, ecology, conservation, photography, drawing, hiking and gardening. As a Kern County resident, your membership includes Eremontia, a quarterly journal with articles on all aspects of native plants; the Bulletin, a statewide report of activities and schedules; and The Mimulus Memo, the newsletter of the Kern Chapter.

Join CNPS or renew your membership online at www.cnps.org.

Student/ Limited Income – \$25

Individual – \$45

Family or Library – \$75

CNPS-Kern Chapter
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Mimulus
Memo

Inside this Issue:

EARLY SPRING YOSEMITE HIGH COUNTRY
BLADDERPOD IN KERN COUNTY
2018 FIELD TRIPS
DATES & TOPICS

